

Welsh Highways Conference 2020

# **Better Value by Design**

Presentation by the Association for  
Consultancy and Engineering (ACE)

# Introductions

Piers Burroughs (Burroughs)

Gary Davies (Arup)

Kate Attwood (WSP)

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## **Background**

Piers Burroughs

## Workshop

Held in November 2018  
Practitioners from across  
industry:

- Clients
- Contractors
- Consultants





CONTRACTOR

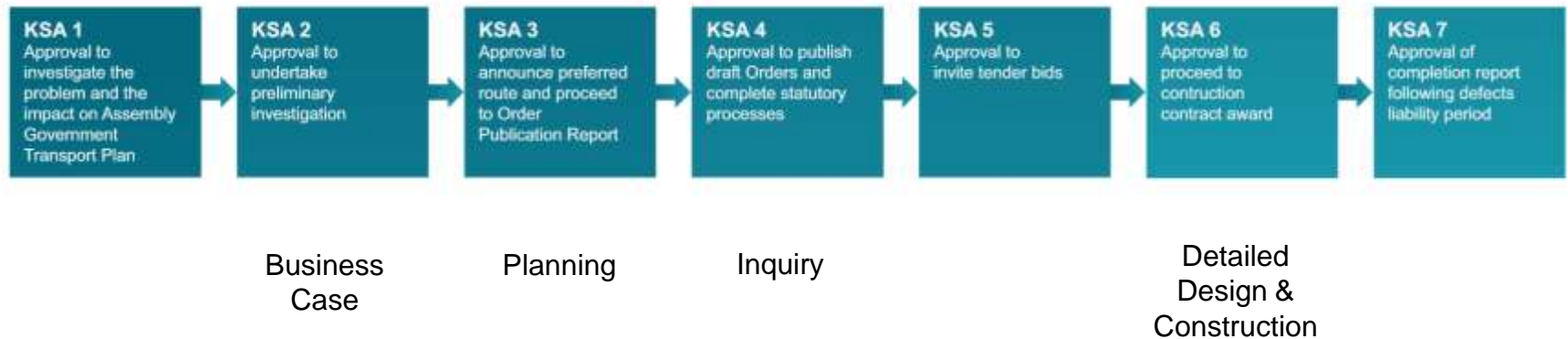


PLEASE SIR,  
CAN I HAVE  
SOME MORE ?

## Key Priority Themes Identified

1. Introducing robust design challenge
2. Providing more accurate site information from Key Stage 2 to 3 and alternative programme durations
3. Merits of the Designer leading the project through Key Stages 3 and 4 (rather than the Contractor)

# Welsh Government Key Stages



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## **Robust Design Challenge**

Alan Monnickendam (Cass Hayward)

Piers Burroughs (Burroughs)

Huw Llywelyn (Griffiths)



## Design Challenge

1. When – design challenge should be introduced
2. Who – would be best placed to provide design challenge
3. The opportunities – resulting from design challenge
4. Commercial arrangements – to develop design challenge
5. How – contractually facilitated

## When

1. Not necessarily appropriate on every job (WG decide): risk and value
2. Could happen at various stages (concept at KS3 or during detailed design at KS6)
3. Only pursue those opportunities where there is merit
4. Most likely time during KS3: allocate, planned and programmed, either as part of:
  - a) a conventional ECI model KS3-KS6;
  - b) or designer led KS3/4 approach

## Who

1. Individuals or organisations with appropriate experience to the scheme under development
2. Envisaged as both designer and contractor (plus key supply chain partners)
3. Team approach

# The Opportunities – the What

1. What (**value** proposition):
  - a) Route selection
  - b) Principal quantities (earthworks, surfacing, drainage)
  - c) Special structures
  - d) Construction or risk orientated (preliminaries)
2. What (**added value** proposition):
  - a) Safety
  - b) Well-being, FGA, socio-economic, Active Travel
  - c) Carbon reduction, sustainability
  - d) WLC

# Commercial Arrangements / How?



1. Reputational enhancement probably not enough
2. Conflicting commercial interests prevents disclosure of best ideas
3. Enhanced fees
4. Incentivisation:
  - a) KS3: Fee measured against savings generated; no simple means has been identified. **Measure true value?**
  - b) KS6: Successful design challenge results in DCT taking on delivery KS6? Contractor appointed.
5. Further work required commercial model (DCT Frameworks? Seconded Staff?)

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**More accurate site information  
from Key Stage 2 to 3 and  
alternative programme durations**

Gary Davies (Arup)

Russell Bennett (Atkins)

## More information from Key Stage 2 to 3

- Insufficient site information for start of KS3
- Surveys
- Utilities
- Stakeholder engagement
- KS2 scope: risk, cost/budget, procurement and programme
- Preferred Route development
- Information handover

## Alternative programme durations

- KS3: 52 weeks insufficient
- KS2/3A: more detailed consideration on programme
- KS3 programme: post tender management
- KS6 programme:
  - Minister's Decision > Start on site - more time
  - Best placed – contractor (tenderer)
- Tender alternative durations & assessment
- Political expectations - overambitious

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## **Consultant Led KS3 and KS4**

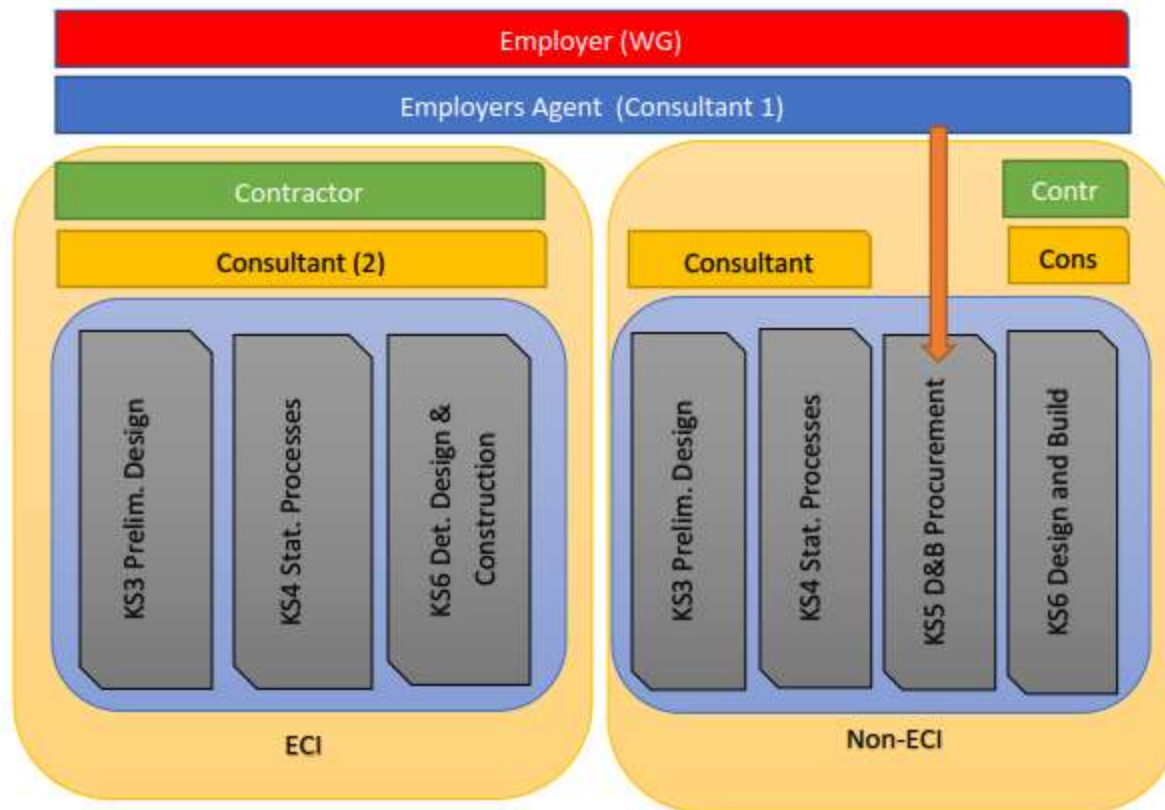
Kate Attwood (WSP)

Rhys Mander (Aecom)



# What?

1. What is Key Stage 3 and 4?
2. ECI in Wales?
3. Is there even an issue?



# Who

## Case Studies for Consultant Led KS3 and 4

A40 Llanddewi Velfrey

<https://gov.wales/a40-llanddewi-velfrey-penblewin-overview>

A55 Junction 15 and 16 Improvements

<https://gov.wales/a55-junctions-15-and-16-overview>



# The Opportunities

## **Value** proposition:

- a) Well-being, FGA, socio-economic, Active Travel
- b) Innovation
- c) Less 'people' engaged in the KS3 and 4 processes
- d) Increased ability to respond to design change
- e) Increased ability to respond to changes in programme
- f) Relationships

# Commercial Implications

1. Better behaviours in supply chain – not driven by extremes of commercial models
2. Cost estimating and budget setting
3. Monitoring and adherence to programme
4. Management of risk
5. Construction planning = programme certainty for Key Stage 6
6. Contract forms?

## How?

Making up for what is lost? Ensuring value is not lost?

1. Engaging experts – wider industry access to specialists
2. Expertise is construction pricing
3. Innovation in construction materials and methodologies
4. Design challenge/review
5. Construction planning
6. Impartiality to the overall commercial drivers to the project

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## **Summary – What Next**

Kate Attwood (WSP)

# Summary and What Next

1. Explore best practice with other Key Client bodies and collaborators (ACE):
  - a) Infrastructure leads (Welsh Government, Scotland, Northern Ireland, Highways England)
  - b) CECA Wales
  - c) ACE Nationally
  - d) Overseas countries
2. Conclude the work in Summer 2020
3. Watch this space:
  - a) Future of Consultancy “Innovation” Launch – June 2020
  - b) Cost Certainty
  - c) Behavioural Approach and Alternative Procurement